

# **Chicopee River Basin Five-Year Watershed Action Plan**

**2005-2010**



(Photo Credit: MDEP)

**The Commonwealth of Massachusetts**  
Executive Office of Environmental Affairs

### 3.0 ACTION MATRIX

The following matrix lists the goals, objectives, and priority actions described in the previous section<sup>1</sup>. In addition, the proposed partners for undertaking each action, potential sources for funding, and the relative priority rankings are indicated (a rank number of 1 indicates the highest priority for action). An attempt was made to identify the most relevant sources of funding for each action; however, other sources identified within this document ([Section 4](#)) and outside the document may also be relevant. Moreover, in some cases, the agency or entity proposed as the lead party may be able to conduct the action as part of its operating budget and/or through the use of volunteers.

Action Strategy	Potential Partners	Priority	Potential Funding
<b>Goal: Protect and Improve Water Quality</b>			
<i>Objective: Protect surface water and groundwater drinking supplies</i>			
Assist municipalities to plan for and protect future surface water and groundwater drinking supplies through a process of integrated water resources planning	EOEA, MDEP, EPA, LGGAN, MDHCD, NRCS, USGS, town planning boards	1	6, 7, 10, 12, 16, 28, 29, 30, 31, 32, 34, 35, 36, 53, 54, 55, 62
Evaluate impacts of landfills on water quality and implement landfill BMPs where needed -- <b>[Ware and Quaboag watersheds]</b>	MDEP, towns, landfill owners	3	28, 29, 30, 32
<i>Objective: Identify and reduce CSOs and nonpoint source pollution</i>			
Continue to support state and federal agencies, and planning commissions to identify and reduce CSOs	MDEP, EPA, PVPC, MRPC, CMRPC, FRCOG, NRCS	1	3, 10, 19, 28, 30, 35, 55, 58, 62
Better coordinate sampling between existing federal, state, and local sampling efforts	MDEP, MDCR, EPA, NRCS, watershed and lake associations	1	10, 33, 55, Operating Budget
Continue water quality monitoring at MDEP's present sampling locations and expand sampling to assess priority waters identified in the Nonpoint Source Action Strategy for the Chicopee River Basin ( <a href="#">MDEP, 2003</a> )	MDEP	1	33, Operating Budget
Reduce phosphorous levels in those lakes identified as having high values in the document entitled, <i>Total Maximum Daily Loads of Phosphorous for Selected Chicopee Basin Lakes</i> ( <a href="#">MDEP, 2002</a> ) and support the implementation of the total phosphorous TMDL for Quaboag and Quacumquasit Ponds ( <a href="#">MDEP, 2005</a> ) -- <b>[Chicopee and Quaboag watersheds]</b>	MDEP, MDCR, EPA, MHFA, COLAP, NRCS, MWC, local towns, Riverways, MassHighways	1	10, 25, 28, 29, 33, 39, 48, 54, 58

<sup>1</sup> Sub-actions that were listed under individual priority actions in [Section 2](#) are not listed in the Action Matrix. For more information on these actions, please refer to [Section 2](#).

Action Strategy	Potential Partners	Priority	Potential Funding
Identify existing Best Management Practice (BMP) documents and distribute them to Planning Boards, Boards of Selectman, Conservation Commissions and Highway Departments. Encourage the implementation of agricultural, urban/runoff, and residential BMPs to reduce anthropogenic impacts on surface and groundwater quality. In the near term, particular interest should be paid toward those areas that have been identified as having high pollutant loads as well as areas that are beginning to show degradation	EOEA, MDEP, EPA, MDAR, COLAP, NRCS, local towns, conservation commissions, watershed associations, farmers, foresters	2	3, 10, 12, 21, 22, 23, 28, 29, 32, 33, 48, 50, 51, 52, 54, 55
Continue follow-up sampling and remediation activities for the seven tributaries identified as having high pollutant load scores in the Assessment Report ( <a href="#">EOEA, 2003</a> ) -- [ <b>Chicopee and Quaboag watersheds</b> ]	MDEP	3	58, 29
Support efforts to address MDEP's river segment and lake water quality recommendations identified in the most recent Water Quality Assessment Report. Please note, not all of the recommendations from the 1998 <i>Water Quality Assessment Report</i> (see <a href="#">Appendix I</a> ) were listed as priority actions in this report, as they are due to be updated by a more recent water quality assessment of the Basin, which was not available for consideration in the WAP.	EOEA, MDEP	N/A	N/A
<i>Objective: Assist municipalities with water resource planning and sustainable development to improve water quality</i>			
Implement recommendations identified by PVPC in the <i>Chicopee River Watershed Basin Assessment</i> ( <a href="#">PVPC, 2004</a> ), especially those related to public education, water quality sampling, and better construction and maintenance of stormwater BMPs -- [ <b>Chicopee watershed</b> ]	MDEP, PVPC, MDHCD, NRCS, towns in Chicopee watershed	1	18, 28, 29, 36, 48, 54, 58, 62
Encourage sustainable residential planning and develop sample bylaws for municipalities to use to govern nonpoint source pollution and erosion	EOEA, EPA, LGEAN, MDHCD, NRCS, town planning boards	2	6, 7, 11, 16, 29, 30, 36, 40, 53, 55
Assist municipalities, wastewater districts, and public water supplies comply with federal and state requirements relating to water quality protection. This may require the construction of new facilities and/or improvement of existing facilities.	MDEP, EPA, wastewater districts and water suppliers	2	10, 17, 28, 31, 32, 62
<i>Objective: Improve condition of storm water infrastructure, monitoring frequency, and maintenance frequency</i>			
Promote and fund an increased frequency of catch basin and street cleaning, and construct deeper catch basins and/or improve existing catch basins within urban areas ( <a href="#">ESS, 2001</a> ). Also investigate emerging technologies to replace catch basins with more effective methods of dealing with runoff.	EOEA, MDEP, towns	2	18, 28, 29, 62
<b>Goal: Protect Aquatic Resources and Freshwater Biodiversity</b>			
<i>Objective: Increase the collection and analysis of data pertaining to biological resources and habitats</i>			

Action Strategy	Potential Partners	Priority	Potential Funding
Evaluate the affects of flow management practices on streamflows and corresponding water quality problems identified by MDEP ( <a href="#">2001</a> ) in the upper Ware watershed -- <b>[Ware watershed]</b> .	MDEP, MDFW, USFWS, TU, Dam owners, Riverways	1	13, 33, 58
Investigate and control the spread of non-native aquatic and wetland vegetation	MDEP, MDCR, COLAP	1	25, 29, 33, 58
Evaluate the effects of hydroelectric dams on streamflow and habitat conditions ( <a href="#">MDEP, 2001</a> , <a href="#">PVPC, 2002</a> ) -- <b>[Chicopee and Ware watersheds]</b>	FERC, USFWS, Hydro owners, MDFW, MDMF, NRCS, TNC, TU	3	13, 33, 43, 44, 45, 46, 47, 48, 58, 59
<i>Objective: Identify impassible barriers, such as dams and culverts, and consider upstream/downstream fish passage where applicable</i>			
Evaluate the need for and increase upstream and downstream fish passage for diadromous fish species. Initially emphasis should be placed on the Dwight Dam (i.e., the lowermost dam on the Chicopee River). Fish passage triggers should be established at the Dwight Dam to determine when fish passage is required at subsequent upstream dams -- <b>[Chicopee watershed]</b>	MDMF, FERC, USFWS, NOAA, NRCS, Hydro owners, TNC, TU, watershed associations	2	13, 14, 42, 43, 44, 45, 46, 47, 57, 59, 60
<i>Objective: Assess potential threats, management, and restoration needs for Living Waters Core Habitats and Critical Supporting Watersheds</i>			
Increase collection of information with regard to rare species and ecologically sensitive aquatic habitats (e.g., rare species surveys, freshwater mussel surveys, certification of vernal pools, etc.)	NHESP	2	Operating Budget
Increase stream assessments and restoration activities	Massachusetts Riverways Program, MDEP, MDFW, NRCS, USFWS, towns, lake and watershed associations	2	1, 13, 19, 54, 55, 56, 57, 58, 61
<i>Objective: Protect Open Space and ecologically sensitive habitats</i>			
Assist municipalities with open space protection and growth management/protection. Particular emphasis should be placed on protecting <i>Living Waters</i> Core Habitats and Critical Supporting Watersheds. Emphasis should also be placed on preserving the rural character in fast-growing communities including preservation of farmland and forests	EOEA, NHESP, MDCR, Massachusetts Riverways Program, MDAR, NRCS, towns, farmers, foresters	1	4, 5, 6, 7, 8, 9, 12, 15, 20, 23, 25, 27, 33, 48, 50, 51, 52, 54, 55, 56, 57
<b>Goal: Increase Environmental Knowledge and Access to Environmental Resources</b>			
<i>Objective: Facilitate the structuring and access to environmental information</i>			
Develop an environmental information system for the Chicopee River basin to	WPI, MDEP, MDCR,	1	10, 12, 18, 36



Action Strategy	Potential Partners	Priority	Potential Funding
house environmental reports, data, and data collection standards. This system could start as a pilot project within select communities and then be gradually expanded throughout the Basin.	EPA, MDHCD COLAP, MWC, USGS, MBOH, Riverways, towns		
<i>Objective: Reduce data gaps through increased environmental monitoring and consistency of data collection</i>			
Existing data collection efforts should continue, and new efforts should be initiated to identify data gaps and reduce them through increased environmental monitoring. Efforts should also be made to increase the quality of data collection through adopting and distributing standards to volunteer groups collecting environmental information throughout the Basin.	MDEP, MDCR, MDFW, EPA, towns, COLAP, MDFW, watershed associations	2	12, 13, 33, 55, 58
<i>Objective: Increase public outreach and education</i>			
Continue with efforts to educate the public e.g., “Do more outreach, more frequently and to more people” ( <a href="#">EOEA, 2003</a> ). For example, interviews with representatives from the Basin on public cable networks as well as local newspapers would be an effective way to reach people and to educate them on the Basin’s ecology, environmental issues, activities that are taking place, and how citizens can participate. Awards could also be issued to towns that are actively engaging in BMPs to generate awareness of measures that the towns and concerned citizens can take to reduce their impact on the environment.	EOEA, MDEP, MDCR, MDAP, EPA, towns, COLAP, USGS, MWC, MBOH, conservation commissions, watershed associations	1	10, 11, 18, 19, 27, 29, 40
Educate local conservation commissions to enable them to monitor, and enforce public works and highway maintenance activities; municipalities should also be encouraged to educate their employees on environmental management practices through peer workshops. For example, members of the public believe that greater “buy-in value” would be achieved among departments of public works and highway departments if they were educated by their peers through peer workshops rather than receiving training from outside entities.	EOEA, MDEP, EPA, NHESP, MHD, conservation commissions, MassHighways, town DPWs	2	10, 12, 18, 38
Support the development of an environmental education center	EOEA, local towns	2	18
Increase opportunities for student involvement in assessing the Basin’s environmental condition and needs	EOEA, MDEP, MDOE, Universities, science educators, towns	2	18
<b>Goal: Build Stakeholder Capacity</b>			
<i>Objective: Increase the capacity of municipalities and local organizations in assessing the Basin’s environmental condition and needs</i>			
Support grassroots efforts such as the Massachusetts Congress of Lake and Pond Associations, Inc. (COLAP) to start new lake associations and to build capacity of existing lake associations. Also, support the development of new	EOEA, COLAP, MWC	1	29, Operating Budget

Action Strategy	Potential Partners	Priority	Potential Funding
watershed associations and build capacity of existing watershed associations. This will enable them to effectively collect, monitor, and report environmental information and to educate the public on their efforts.			
Provide municipalities with environmental education, model bylaws and regulations, and resources to encourage pro-active and environmentally sound watershed management	EOEA, MDEP, MDCR, PVPC, MRPC, CMRPC, FRCOG, municipalities	1	18
Provide training or other assistance to enable Conservation Commissions to identify, document and pass on information about rare species and significant habitats in their communities to appropriate state offices (e.g., the NHESP)	NHESP, conservation commissions	3	18, Operating Budget
<b>Goal: Enhance Recreational Opportunities</b>			
<i>Objective: Increase law enforcement of misuse</i>			
Increase enforcement of motorized watercraft and ATV violations and misuse	Massachusetts Environmental Police, Local harbormasters, police	2	Operating Budget
<i>Objective: Increase the number of outdoor recreational opportunities and associated educational benefits</i>			
Increase and maintain public access sites along water bodies (e.g., canoe launches, disabled fishing access, etc.), the quantity of bike trails, and the number of public camping opportunities throughout the Basin.	PAB, MDCR, MRPA, MHD, local recreation commissions, towns	2	9, 24, 25, 26, 38, 63
Increase quantity and quality of interpretative materials in recreational areas	EOEA, MDCR, MRPA	3	9, 26
Investigate and designate appropriate roads/trails as scenic areas	MDCR, PVPC, MRPC, CMRPC, FRCOG	3	9, 24

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